The Socratic *elenchus* and knowledge processes in the 21st century

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Abstract

Contemporary scholarship in various academic spheres has often perceived the epistemological domains within the Arts and Humanities as obsolete and irrelevant to the contemporary development paradigm. Instead, disciplines which promise immediate and practical results are preferred as significant and appropriate. Contrary to this popular perception, the present paper reflects on the relevance of the Socratic *elenchus* to the 21st century knowledge processes, especially in developing countries. The Socratic *elenchus* is regarded both as a philosophy and method. The contention is that the Socratic *elenchus* which epitomizes critical thinking, which is itself the core of the Arts and Humanities disciplines, is in fact more significant and relevant in today's world affairs which are becoming more complex than ever before. Such relevance is not limited to the Arts and Humanities alone. Hence, to demonstrate this assertion, the paper reflects on the Socratic *elenchus*, which is not only a philosophically interesting method, but also relevant to a broad spectrum of knowledge processes in the contemporary developmental paradigm. The Socratic *elenchus*, named after the classical Greek philosopher Socrates, is a form of inquiry and

dialogue between individuals, based on question and answer technique to stimulate a critical stance that illuminates the often-taken-for-granted ideas. The Socratic *elenchus* provides a model of critical thinking, which is itself a very indispensable cognitive skill of all times. The development of a more erudite, astute and alert mind is of critical importance. Such a mind is more prepared, and so in tune to understand and confront problems of the contemporary sophisticated universe which is characterized by large volumes of information.

1. The question of knowledge and its relevance

Over the past two decades or so, most disciplines in the Arts and Humanities have come under immense pressure to justify their continued existence within the education curriculum at almost all levels. The Arts and Humanities have often been perceived as disciplines that are irrelevant for the contemporary development paradigm. For this reason, and therefore in an attempt to appear relevant, many disciplines within the Arts and Humanities have preoccupied themselves with adoption of methodological approaches from science and technology to bear upon their different activities. With this adoption alone, the Arts and Humanities seem to concede the irrelevance of their courses. Alternatively, it could just be a way of surviving in such a harsh and competitive academic environment. While this perception is slowly becoming entrenched in many people's thinking, and in fact it has become a popular basis for a number of political ideologies, no one has really challenged and questioned whether the so-called contemporary development paradigm represents a comprehensive articulation of the whole range of basic human needs, some of which are by far ably articulated in the Arts and Humanities. From such accusations one thing is clear: that the relevance or value of any knowledge must be validated by what it can contribute to human development. It seems therefore that knowledge from the Arts and Humanities lacks that quality.

For the sake of argument, when we talk of relevance of knowledge, we usually refer to expectations attached to a piece of knowledge. If a piece of knowledge is irrelevant, it is dropped. It could be argued therefore that relevance is a factor that motivates people to engage in their pursuit of knowledge of a particular kind. If this is correct, then Aristotle's observation that man is by nature an inquisitive being, seeking knowledge (Adler, 1997: 79), has been contradicted. Knowing is in this case no longer regarded as a natural human tendency, but an activity actually motivated by relevance. Granted this were the case, can we say there is some knowledge which is irrelevant? However, if it is agreeable that man is by nature an inquisitive being, then it can be argued that the fact that it (some idea) is knowable, then it is relevant. Otherwise it would be unknowable. In his speech to the British parliament, David Willetts, the UK Minister for Universities and Science from 2010 to 2014, underscored the value of the Humanities and Social Sciences by stating that "every really big issue needs to be looked at from the perspective of different disciplines" (Willets, 2011: np.). Before they become a means to something else, disciplines are fundamentally worthwhile in and of themselves. Similarly, in its AHRC Strategy 2013 – 2018, the *Arts & Humanities Council* has singled out the Arts and Humanities' key contribution to the life of a nation as that of helping humanity tap into a long tradition of engagement with key ideas that have shaped the contemporary world.

Since today the value of knowledge is commonly perceived to consist in its usefulness for the development processes, and not for its own sake, further inquiry can be made into what exactly development consists in so that it becomes a determining factor for knowledge. From what can be gathered in terms of popular perceptions, development means 'development of things' that help human beings meet their basic needs which in turn improve the quality of their lives (Sumner, 2006: 645). Basic needs include housing, food, health, and many more. Some prefer to call them survival needs. But development which could be described as a process (dynamic course of change) or a state (static condition) has to do with the quality of life, and that in itself could mean a lot more things. For instance, it could mean the ability to manipulate information to one's advantage. What this means is that development is not only limited to the possession of sufficient food, shelter, public service or

anything else, for human survival. The fulfilment of basic needs should be able to free someone towards greater heights of achievements. That is now quality life.

There is a general consensus that knowledge leads to a more fulfilled and sustainable development (see Brøther, 2013; Okolie, 2003). However, knowledge is considered as more of a continuous process than a product of cognitive processes. Some have argued that a teaching strategy that lays emphasis on the process of arriving at an answer rather than simply requiring students to be able to regurgitate and interrogate the 'right' answer, whether or not they understand the answer or its justification, is more important as its inherent dynamism allows students to construct their own knowledge (Lutz, 1996: 41). Indeed that process opens up to more opportunities of choices. As the United Nations Development Program's (UNDP) Human Development Report (1990: 1) observes, enlarging people's choices is in itself an aspect of development. Human development can therefore be said to be a process of enlarging people's choices where "the most critical of these wide-ranging choices are to live a long and healthy life, to be educated, and to have access to resources needed for a decent standard of living. Additional choices include political freedom, guaranteed human rights and personal self-respect."

In developing a model for assessing human development, Martha Nussbaum proposes "Capabilities Approach" in which she sees "Human Development Approach" as the creation or enlargement of one's opportunities (Nussbaum, 2011: 17). As an approach to comparative quality-of-life assessment, and to theorizing about social justice, development is not just about the total or average well-being but about the opportunities available to each person. In so doing, the approach respects each person as an end where freedom of choice is guaranteed and maximized. This is more of substantive freedom than formal freedom. With this substantive freedom, a person may be able to choose actions that can truly be said to be theirs; those for which they can be held accountable. The approach also recognizes the plurality of values (Nussbaum, 2011: 18). So, knowledge provides one with greater capability or freedom for making choices. One cannot make a choice without knowledge of what is to be chosen over and above other alternatives. It is in this sense that some contend, and rightly so, that satisfaction of basic needs is not sufficient, and

cannot single-handedly harness the constitutive elements of human development.

Science and technology have had an enormous influence on the thinking of the contemporary society. These epistemological domains have assumed a great deal of power that influences decision making processes within the political and economic domains. The scientific and technological discourse has permeated and shaped the structure of our society. Many aspects of academic and educational policies are framed on the prospects of science and technology. In Malawi for example, the National Commission for Science and Technology (NCST) is supposed to be the umbrella body charged with spearheading various aspects of research in various epistemological domains. However, to be politically and economically correct, it places emphasis on science and technology, not only in its name but also its activities, although it is correct to think in my view, that technology applies to various aspects of knowledge, and not only science. NCST's motto reads: "a nation with scientifically and technologically led sustainable growth and development" (http://www.ncst.mw/). Probably the term science is used both in the ordinary and specialized senses without clarifying. This makes it a wooly concept. Science could denote an approach to a research problems as is the case with social and human sciences. It could as well mean a specific sphere of enquiry. There is little doubt that the NCST uses either of these conceptions of science in a way that is convenient to its operations without having to be labored to make it explicit. Although this is the case, more critical questions can be raised concerning the current dominance of science and technology in various aspects of human life. Is scientific and technological discourse the end to the endless questioning by human beings? Is it the alternative of alternatives by which human beings can realize their true selves and worth? Are science and technology the destiny for which human intellect has naturally tended?

Science and technology, although different and related among themselves, are but a distinct way to understanding nature, but not the way. They constitute particular ways of looking at the world. They cannot engage certain important issues concerning human existence such as beliefs which by their very nature cannot be proved or disproved by employing methods from a strictly natural scientific domain. Think of questions of existence of supernatural powers and

beings, love, or the true purpose of life. The Arts and Humanities in general provide us with a distinct outlook of the world. Come to think of the sort of universe that various literary works depict. These so-called "non-scientific" domains are not only significant to humankind by themselves; they are also indispensable to some scientific spheres in as much as the scientific spheres are to other knowledge domains. Come to think of the significance of art in architectural designs. Although architecture is ordinarily perceived as belonging to the scientific domain, first and foremost, an architect is an artist who develops a mental picture of the object in his mind before it is actualized in the physical world by some technicians labelled as bricklayers, carpenters, plumbers or painters, among others. Hence, it is not in vain for some to claim that every piece of knowledge has relevance in its own way. It addresses a particular domain of human existence. Besides, all knowledge domains complement each other. It is in light of this consideration that this paper demonstrates the relevance of the Socratic *elenchus* in knowledge processes of the 21st century.

2. The Socratic *elenchus*: A philosophy and method of the knowledge process

The Socratic *elenchus* is generally considered as a system, method, an intellectual technique for philosophical enquiry. It is called "Socratic" because the historic Socrates is known to have used it more than anyone in his philosophical practice almost 2500 years ago. The *elenchus* is ubiquitous in, and characteristic of, the Platonic dialogues where the historical Socrates engages participants by going through several conversational stages. The stages that Socrates uses are (a) Wonder, (b) Hypothesis, (c) *Elenchus* (refutation and cross-examination), (d) Accept/reject the hypothesis, and, (e) Act accordingly, in that order (Boghossian, 2006: 44).

In the dialogues, questions are asked in order to further define the idea in question. Socrates seeks definitions for the terms about which he inquired, starting with general questions and systematically narrowing down the inquiry. Secondly, hypotheses or responses to the question are offered by one or more participants in the dialogue. There is a variety of responses. Thirdly, *elenchus* (or *elenchos*), is at the heart of Socrates' dialogical practice. It is in the *elenchus* that, through a sort of cross-examination, Socrates offered

counterexamples to the hypotheses of his interlocutors. The responses of his interlocutors are reduced to absurdity. What appeared as a genuinely correct response in the first place is not sufficiently sophisticated to escape the otherwise genuine concerns about its unsuitability (Boghossian, 2006:44). The counterexample provides an instance that may make the hypothesis offered false in light of new evidence. In other words, the hypothesis is brought to absurdity. In the domain of Logic, the argument of this kind is technically termed as a *reductio ad absurdum*. The *elenchus* examines the consistency between beliefs held by dialogue participants. Once inconsistencies are found, the participants are forced to refine their concepts. Question, answer and counterexamples are the defining characteristics for this stage of Socratic practice. Of course, it is not always the case that a counterexample is accepted (Boghossian, 2006: 45). Through hypothetical questions, absurdity becomes significant not only for forcing one to revise their hypothesis, but also for testing one's mental strength in handling contrary beliefs, as they proceed with the dialogue. There are instances that some dialogue participants could not withstand Socrates' provocative questioning, and often left the debate inconclusively as was the case with Euthyphro. *Euthyphro* is one of Plato's dialogues whose setting depicts events occurring in the weeks before the trial of Socrates (399 BCE). They meet at the court where each awaits preliminary hearings about an imminent trial. Socrates engages Euthyphro in a discussion concerning the meaning of piety or virtue which is usually regarded as a manner of living which consists in the fulfilment of one's duty both to gods and to humanity. What is striking about this conversation is that instead of giving a precise definition of what piety or impiety is, Euthyphro merely gives instances of human actions which can be labeled pious or impious. Although the dialogue ends without one getting a glimpse of a satisfactorily precise meaning of piety, there is something crucial about it. It highlights the inconsistences and self-contradictions that characterise a lot of popular statements uttered without thinking about their logical implications. This is precisely one of the fruits of the Socratic *elenchus*, namely, the clarification of concepts used in any kind of dialogue (See Plato, 2015).

But what exactly is the Socratic *Elenchus*? Scholars call Socrates' method of enquiry the *elenchus*. "Elenchus" is a Greek word for *inquiry* or *cross-*

examination (Boghossian, 2006: 44). It is an inquiry through which people reveal to themselves, discovering what the opinion they have held for so long on a particular subject really amounts to. The aim of the *elenchus* is not merely to reach adequate definitions of concepts, but it also has a moral function since regular elenctic philosophizing makes people happier and more virtuous than anything else. Socrates enabled those with whom he engaged in these dialogues descend into the inner-most depths of their own souls and create their own life through self-criticism. Hence it is impossible in many instances to know what we as human beings believe in until we engage others in dialogue. For us to discover our philosophical views, we must engage with ourselves, with the lives we already lead. Our views are dynamic as they form, change, and evolve, as we participate in this dialogue. Without intellectual dialogue human beings cannot discover what philosophical colours they harbour. At some point everyone preaches to himself and others what he does not yet practice. Until we engage in a dialogue with others, everyone acts in ways that are in some way contradictory or inconsistent with the views he or she confesses or professes to hold. More importantly, in the Platonic dialogues, Socrates is likened to a gadfly which stings men into consciousness. In this elenctic process, Socrates is also likened to an intellectual mid-wife who successfully conducts the birth of healthy ideas which the people of his time were not aware they possessed. By examining each single response from his interlocutors Socrates leads them to admit of their ignorance. Although the natural and immediate outcome of the *elenchus* is *aporia*, or confusion, the important thing is curiosity which leads people into seeking new knowledge or to refine their hypothesis. It is this desire to seek new knowledge that is crucial (Idachaba & Haaga, 2015: 35).

Gregory Vlastos (1907-1991), a Turkish born scholar renowned for his dedicated philosophical commentaries on Socrates, considered the *elenchus* as "Socrates' main instrument of philosophical investigation" (Vlastos, 1982: 711). He described Socrates' method of inquiry as "among the greatest achievements of humanity" (Vlastos, 1971: 19). For Vlastos, the Socratic method of inquiry makes philosophy an ordinary human enterprise. Indeed, instead of engaging in an intellectual dispute about a suitable philosophical method, say analytical method, or any such specialized vocabulary, the Socratic method employs ordinary and common language that thrives in the

public domain, as well as common sense. This is the case because living is ordinarily every person's business. This method puts trust in human beings' common sense as endowed with the great potential for self-understanding. Indeed, Socrates treated philosophy as an ordinary activity, a way of living. He considered it as something any ordinary person could do. With this simple technique, Socrates approached problems from many vantage points. Mention should be made that although this method of inquiry is called the Socratic method, Socrates himself never spelled out a method as such for this kind of intellectual activity. It is those who make commentary on Socratic works, such as Vlastos and others, who form the consensus that the *elenchus* typifies Socratic philosophy and its attendant method.

Although the Socratic method is situated in the ordinary human domains of mental operation, it is not as simple as it is often presented by various scholars. On the contrary, it calls for the exercise of the highest degree of mental alertness of which anyone is capable. The use of Socratic *elenchus* demonstrates how concepts used in every day conversations not only lack universal agreement on their meaning, but also that every single person has a somewhat different opinion on each and every concept being used. In the Socratic method, it seems there is no concept – an abstract representation of reality – which is not intimately related to the most profoundly relevant human experiences. It is not the case, however, that the Socratic technique of philosophical enquiry lacks a system. On the contrary, the Socratic technique can be distinguished from non-systematic enquiries because of its attempt, in a sustained way, to explore the ramifications of certain opinions and then offer not only compelling objections, but also alternatives to them.

This kind of inquiry is both adequately exhaustive and scrupulous, and in many ways resembles the debate that characterizes the works of Karl Popper (*positivist*), Imre Lakatos, Paul Feyerabend and Thomas Kuhn (*post-positivists*) in their contribution to *Philosophy of Science*, and specifically their views about the nature of scientific knowledge, method, and how scientific knowledge grows. Although these thinkers did not have exactly the same views about science as demonstrated in their criticism of one another's views, they nonetheless demonstrated a critical awareness of the various methlogical approaches to scientific knowledge. This is generally considered a *post-*

positivist outlook (see Staley, 2014: 1-85). This is the case because contemporary scientific enquiry often makes us believe that whatever is not measurable cannot be investigated, and eventually its existence and significance are remote. In that case, science is ill-equipped to address human experiences such as sorrow and joy and suffering and love. This failure which results from methodological inadequacies, and probably from sheer arrogance, does not mean such human experiences are useless. Actually they form an important dimension of human existence whose access requires different methods. The progress in science is akin to the Socratic technique in the sense which it portrays the mind's flexibility to change about what to believe in face of new evidence which contradicts its earlier beliefs. Thus, characteristic of general philosophical outlook, knowledge grows by permanent examination of beliefs. In his engagement with important questions, Socrates focused primarily on the "cosmos" within human beings, opening up new realms of self-knowledge, while at the same time exposing a great deal of human error, superstition, vanity, pride and dogmatic nonsense immanent in ordinary beliefs.

The Socratic method offers an opportunity for people to turn against their own long held dogmatism. This self-criticism has a liberating force. It frees one from one's long and firmly held opinions, as well as opinions of others which cannot be substantiated. As Vlastos (1982: 711). explains, "this mode of argument is a potent instrument for exposing inconsistency within the interlocutor's beliefs." Dialogue in all its forms compels us to explore alternative perspectives, asking what might be said for or against each of those perspectives. For Rob Reich (1998: 69),

> The *elenchus* lies at the heart of the Socratic method, for it was through refuting or cross-examining people that Socrates aimed to shame them into a recognition that their beliefs were false and in need of revision. Application of the *elenchus* thereby drew Socrates' interlocutors into common inquiry; it cleansed them of the cobwebs of false belief that clutter reason. Elenctic questioning breaks down in order to build up. The mechanism of the *elenchus* is straightforward. It works by probing each response of an interlocutor, examining whether the entire set of

beliefs held by a person is mutually consistent. The natural outcome of the *elenchus* is *aporia*, or confusion. Upon being refuted, the interlocutors can no longer maintain what they originally believed and are left, typically, in a state of utter perplexity.

From Reich's statement one gets the idea that Socratic *elenchus* is destructive as well as constructive. This dialogue is both corrosive as well as therapeutic in the sense that the process bruises one's intellectual ego, but also makes one feel enlightened after discovering oneself.

In many respects, the process of the Socratic dialogue is also akin to the *will to power* which is a key concept in Friedrich Nietzsche's moral and political philosophy. Taking a critical orientation, Nietzsche's aim is to free people from what he regards as their false consciousness about culture and morality which consists in the belief that this morality is good for them (see Williams 2001). Nietzsche's stance on morality is anti-realist. Since morality is considered from the view of values, Nietzsche argues that there are no moral facts, and there is nothing in nature that has value in itself. For example, to speak of good or evil is to speak of human illusions, of lies according to which we find it necessary to live. Hence, what a human being does is to supplement reality by an ideal world of his own creation, a world of fantasy. Nietzsche is then challenging the very idea of the moral code. All concepts are human inventions, and all concepts are ultimately the expression of some form of will or other. Accepting these concepts means surrendering one's will to the wills of those who framed them. He therefore encourages people to reject any imposition of concepts on them, and exercise their independence and creativity to develop their own values from which they will see the world (Geus, 2011: 19; Clark, 2015: 99). In this regard, both Socrates and Nietzsche promote a critical outlook on ideas people have long held to be true, although their approaches differ significantly. Those ideas can originate from oneself or the society. In the Socratic *elenchus*, one is patiently led to the discovery of the inadequacies of the ideas one holds to be true, while Nietzsche is straight, more direct and unambiguous when he encourages people to reject the moral deceptions and develop their own.

Not everyone agrees with the Socratic *elenchus* both as a philosophy and its attendant method. There are objections to its use as a genuine tool for knowledge. The fact that more often than not the *elenchus* process results in *aporia* or confusion of some sort with Socrates seemingly bent on critiquing all possible proposals for answers without an indication of what might be the correct one, renders its usefulness problematic to many people (Vlastos, 1982: 7). It is the *aporia*, the absurdity, which enables one to reconsider his earlier position which is however more important for innovation. The absurdity of earlier answers keeps the mind alert as it no longer takes any suggestion for granted as the final answer. Reich has suggested a Socratic method that detaches from truth as the desired goal or outcome that serves contemporary knowledge process best. The process is more important than the result. Reich emphasizes this point: "in contrast to most other great thinkers, Socrates' primary legacy is not a contribution to humanity's storehouse of knowledge, but a pedagogy; not substance but process. To overstate only slightly, for Socrates, and for our understanding of him, method is all" (Reich, 1998: 68). Socrates is eternally skeptical of any claim to possessing absolute and eternal knowledge. All knowledge is fallible and is open to future revision. Every truth claim is open to review (Reich, 1998: 75). That openness is crucial. The *elenchus* widens one's mind through dialogue. It is not about facts but improving and discovering ourselves as humans, and enhancing our understanding, our potential and capabilities. The mind is animated to think over the content critically and find its own answer through questions and investigations. That is the point.

3.   Knowledge and the contemporary development paradigm

There are at least four theories of development, and these are modernisation, dependency, world-systems, and globalization. The dominant discourse of development or the prevailing vision of development in the contemporary world is that which considers development from the point of view of the modernization theory rooted in capitalism. To develop means to become modern (Matunhu, 2011: 65). In many ways it reflects the Western idea of modernity encompassing change in a variety of aspects of the human condition. Development is therefore associated with the development of capitalist social relations which are historically conditioned (Przeworski &

Limongi, 1997: 156). In Development Studies, a specialized sphere of knowledge dedicated to issues surrounding development, economic development is the most dominant perspective, although development as economics is just an aspect of the larger multi-dimensional notion of development (Sumner, 2006: 645). For Dudley Seers (1969: 3), development is "inevitably treated as a normative concept, as almost a synonym for improvement." The low standard of living of the mass of the population in developing countries has been singled out as the key issue in development (Szirmai, 2005: 1). Similarly, the normative point of departure in Development Studies is that of improving people's lives, seeking to change or at least to do something good. Thus development intervenes in the lives of people while it often claims to know what is good for the 'Other' (Sumner, 2007: 59).

In recent times, development has assumed a limited meaning especially deduced from the practice of development agencies which aim at reducing poverty and achieving the Millennium Development Goals. The vision of the liberation of people, which animated development practice in the 1950s and 1960s has thus been replaced by a vision of the liberalization of economies (Sumner & Tribe, 2008: 9). Accumulation of material wealth is considered as the good since it enables change from material poverty to material development (Sumner & Tribe, 2008: 10). Understood in that way, poverty reduction is considered as good change, and therefore the single most important objective for development which can be achieved through material wealth accumulation. However, goodness is not an ordinary concept. To ask what it is to be good is to enter the realm of value systems. That is, goodness is a value-laden concept.

The idea that development consists of change from material poverty to material accumulation has been considered by other scholars as inadequate. The dimensions of development are extremely diverse to be reduced to a single knowledge sphere. Development dimensions include economic, social, political, legal and institutional structures, technology in its various forms (including the physical or natural sciences, engineering and communications), the environment, religion, the arts and culture, among others (Sumner & Tribe, 2008: 11). Besides, the 1990 *Human Development Report* changed the

contours of thinking about development. This change was necessitated by the works of such thinkers as Amartya Sen, Martha Nussbaum and others (Sumner & Tribe, 2008: 22). Sen, for example, focused on the capabilities approach to development, which consists of the means, opportunities or substantive freedoms which permit the achievement of a set of 'functionings'. These functionings are 'things' which human beings value in terms of 'being' and 'doing'. This, according to Sen, is the essence of *Human Development*. Thus, in his *Development as Freedom* (1999), Sen considers development as an exercise of freedom, a remarkable shift from goods to human beings. Indeed, this is the shift in focus from the material improvement of human lives to the human capability to do so. The end of every aspect of development is freedom. Sen is convinced human beings are likely to have sustainable development if development is conceived as human freedom. This view is contrasted with the narrower view which consists in identifying development with the growth of gross national product or with the rise of personal incomes, industrialization or technological advancement, or indeed with social modernisation. For Sen therefore, development is an integrated process of expansion of substantive freedoms. Specific aspects of development such as economic growth, technological advancement and political change are all to be valued in the light of their contributions to the expansion of human freedoms. Among the most important of these freedoms are freedom from famine and malnutrition, freedom from poverty, access to health care and freedom from premature mortality (Sen, 1999: 3). Understood in this way, freedoms effectively become the primary ends of development as well as among its principal means (Sen, 1999: 10).

In this regard, Sen is duly recognized by others in the field as having had a major intellectual influence on the framing of capability approaches to development as a human development, although not all aspects of his theory are taken aboard (Nussbaum, 2011: 17). Nussbaum uses the plural 'capabilities' in order to drive home her point that the most important elements of people's quality of life are plural and qualitatively distinct, namely "health, bodily integrity, education, and other aspects of individual lives cannot be reduced to a single metric without distortion" (Nussbaum, 2011: 18). Thus, Sen and Nussbaum's proposition serves to underscore Andrew Sumner's misgivings about the concept of development where values

are central to its definition. Value disputes with regard to development extend to questions of what it is that must be improved, how to improve it and, especially, the question of who decides. This is the case given the fact that for much of the period after the Second World War development has been defined in terms of a long-term view with an emphasis on socio-economic structural transformation, especially the global shift from an agrarian economy to an industrial economy (Sumner, 2008: 25).

4. Economic prosperity as the epistemological basis of development

There is no doubt education plays an important role in almost all spheres of human life. Information is such a basic resource that almost all activities in the contemporary age, which is called the information age, are knowledge-related. This is in stark contrast to activities of the industrial age that focused on physical functioning. Without information and knowledge, nothing has meaning as material will be formless, and motion is aimless. Information is essential for planning, directing and monitoring purposive activities of organisms and organizations (Oettinger, 1980: 192). On its part, education is an activity which enriches people's understanding of themselves and the world (Ozturk, 2001: 39). For R.S. Peters (2010: 4-5), the criteria of 'being educated' as an achievement has to do with knowledge and understanding. Being educated implies the possession of relevant knowledge. In our modern day, *knowledge economy* is coined to reflect the increased importance of knowledge in economic development. In knowledge economy, emphasis is laid on the acquisition, creation, dissemination, and use of knowledge for greater economic and social development (Chen & Dahlman, 2004: 9).

Although not so reliable, there is correlational evidence suggesting that education and economic growth are related. Policy makers often suggest that spending more on education leads to sufficient growth of income, usually more than the initial investment. Education is generally considered as a prerequisite for development which is itself a condition for good life. Thus, the significance of education is even more pronounced in development, especially when we consider the role of development as that of providing good life. Besides, education has become a very huge industry serving other industries. Rodney Ramcharan (2002) has underscored this status by making

an audacious and unambiguous claim about the role of education in economic development. He says, "No country has achieved sustained economic development without substantial investment in human capital" (Ramcharan, 2002: 1). For him, the hallmark of the development process is the utilization of different types of skilled labour in the production process. That is how education can facilitate economic development. The World Bank agrees saying: "Knowledge is like light. Weightless and intangible, it can travel the world, enlightening the lives of people everywhere" (World Bank, 1998: 1). For individuals as well as countries, education is used for creating, adapting, and spreading knowledge (World Bank, 1998: 40).

While some aspects of education are specialized in the construction of theories with which to understand human beings and their world, others are committed to fostering practical knowledge for technological innovations that serve the material needs of human beings. Although these two examples of knowledge orientations are somewhat different in content and method, they are not unrelated. Their relation is complementary. Contrary to the theoretical literature which has largely treated human capital as a homogenous concept, Ramcharan (2002. 3) thinks that each sphere of knowledge provides a skill that performs a specific but complementary function within the production process in the skilled sector. Education curricula will purposely be developed to produce knowledge that will specifically enhance the fulfilment of particular and desired goals. When development is considered from the point of view of economic growth for instance, where poverty is a non-development, and affluence development, a specific education that produces relevant knowledge to enhance this will be promoted. In this case the production process of materials can directly be enhanced by the skilled labour. It is on this basis that Ramcharan (2002: 3)says that the dominant theoretical framework has largely treated human capital as a homogenous concept, yet this is not the case. Indeed, each knowledge sphere meets a particular need within the production process. The relevance of each knowledge discipline is determined by what it can do within that complementary role. For example an artist will develop the mental picture of what a physical object might look like in principle. This is often referred to as the artistic impression which involves a great deal of mental operations such as imagination which brings about a concept. However, it will require skilled people to interpret and actualize the

artistic impression in the real world. It is a grave error therefore to think that every discipline of knowledge be validated empirically and practically by solving immediate human problems.

The problem of development has been re-ignited by the needless intervention of state politics into the already age-old politics of knowledge. In the first place, the world of knowledge is full of hierarchies that are manifested in different ways. Different forms and domains of knowledge are endowed with unequal statuses. The natural sciences have always been considered as superior, occupying the top position, and the less 'exact' forms of knowledge such as those in the Arts and Humanities are relegated, and have had to settle for a position at the lower echelons of the hierarchy (Weiler, 2009: 486; Idachaba & Haaga, 2015: 35). The politics of knowledge is embedded in the question of economic utility. Thus, within the state, one type of knowledge is typically given priority over another and is accorded special standing and legitimacy (Weiler, 2009: 488). In our times, economic utility is so important that the creation of knowledge has come to be regarded and treated so pervasively in economic and commercial terms. The politics of production and profit are arguably the most powerful political dynamics in today's world (Weiler, 2009: 489). Knowledge has become a commercial commodity whose value is in how it can turn around a nation's economy. For this reason, the state deliberately prefers those areas of knowledge it considers have unquestionable potential to boost its economic development.

Although lately there has been a shift in the perception of what development is all about, namely from simple accumulation of material wealth to the improvement of capabilities as is the case advanced by Sen (1999) and Nussbaum (2011), the epistemological edifice on which such thinking is founded appears to remain firmly rooted in the more practical domain of knowledge. There is no doubt that development results from a particular type of education, where education is considered as a catalyst for economic success. The education system must therefore be consistent with the dominant development discourse. Within this education system, it is the disciplines that have the prospects of quantifiable results which are considered to be relevant. In Malawi for example, it is generally observed that from primary school through secondary schools to tertiary institutions, the curricula emphasise the

practical aspects of the courses on offer. Those courses that appear to offer nothing in terms of such immediate expectations are forced to revise their focus in order to be consistent with the national development agenda. Their worth can only be considered in terms of how much of economic growth they manage to contribute. This is akin to what Dorothy Nampota lamented in her report *Training teachers for secondary mathematics and science: The challenge facing University of Malawi* where on the basis of the positive relationship between Science, Mathematics and Technology and development, she made a bold claim that "there is evidence that currently university curricula emphasise abstract concepts that have nothing to do with anything else". She lamented the shortage of secondary school mathematics and science teachers by blaming other disciplines, in my wild speculation, the Arts and Humanities, which attract higher student enrolment (Nampota, 2007: 9).[1]

This particular paradigm and its epistemological basis casts doubt over the worth of most if not all, the disciplines in the Arts and Humanities. It is for this reason that courses offered in these disciplines are today generally considered as worthless for their perceived lack of practical aspects required for facilitating economic development. Understood in that way, the campaign to have them removed from the education curriculum altogether has been relentless. To affirm the omnipresence of this kind of thinking, the Malawian school curriculum, especially at secondary level has on many occasions been tinkered with to make sure that science and technology become dominant. It is for this reason that today, students are forced to take scientific and technological courses at secondary level even though there is overwhelming evidence that some of the students themselves do not feel attracted to them. We can only speculate that there is an implicit requirement that everyone become a technologically oriented person.

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[1] http://portal.unesco.org/education/en/files/52556/11725003995Nampota.pdf/Nampota.pdf. I have always considered this complaint full of hot air, and I am very skeptical whether the veracity of such mythical statements can be demonstrated in light of nothingness of abstract concepts she so carelessly refers to. The question of nothingness referring to a piece of knowledge has an idea of value written all over its face. Values themselves are a matter of conventional consensus. It is not the case that specific piece of knowledge becomes everything or nothing by itself.

Universal emphasis on material possession is partly responsible for the kind of thinking which sees development as essentially economic success. This is heavily entrenched in the capitalist system which exploits technological innovation for mass production of goods and services. This idea brings into question what development, education, as well as knowledge really mean to an individual in that context. However, it is clear that most Arts and Humanities disciplines do not proceed by question and a fixed answer method espoused by most scientific and technological domains. They rather look for an understanding. The kind of understanding that the Arts and Humanities seek cannot be said to be utterly worthless and devoid of any development aspect. When development, and education which produces knowledge, are approached in a holistic way, there can be no useless knowledge, and there is no aspect of knowledge that is irrelevant to development. The fact that development is about the whole human being, knowledge cannot be limited to scientific and technological domains alone. All aspects of knowledge are relevant in their respects. They serve different but complementary purposes. However, every researcher is inclined to think that his or her knowledge sphere is more fundamental than the other. Come to think of Mathematics, Language, Communication, Classics, History, Development Studies, or Law. They all claim to provide the world with fundamental knowledge. It is not wrong that scholars in those spheres think like that. To some extent one is justified in doing so for that is the only sphere one is conversant with. From the point of view of any researcher, his knowledge cannot be worthless. If a different development paradigm finds knowledge from another domain useless, the problem is not with the knowledge produced therein, but one's narrow focus and the politically imposed focus on specific type of knowledge. That choice does not warrant to marginalize or indeed obliterate the perceived irrelevant disciplines. Quick techno-fixes do not solve enduring problems. Human beings do not only live for today, but also for posterity, even though they are inclined to prioritise the urgency of their current situations.

The understanding that the Arts and Humanities seek by addressing specific questions is important in many ways. It is on this basis that the next section identifies and engages *Critical Thinking* as an aspect of knowledge that the Arts and Humanities espouse. It demonstrates the significance of critical

thinking within development, economic development included. Specifically, it demonstrates the pedagogical and epistemological significance of Socrates' *elenchus*, an archetype of critical thinking, in knowledge processes in the 21st century.

5.   The Socratic *elenchus*, knowledge processes and development

This final section demonstrates how the Socratic *elenchus*, which is regarded as a prototype of critical thinking, a skill synonymous with the qualitative aspect of knowledge within the wider domains of the Arts and Humanities, is a *sine qua non* for the 21st century knowledge processes. Knowledge is critical for survival as well as for development. Although Socrates practised the *elenchus* about 2500 years ago, his methods of philosophising, and indeed of knowledge acquisition, have global relevance for a 21st century paradigm of learning and knowledge convergence. It is an approach to 'knowledge building' which still represents an effective remedy for the great challenges facing mankind (Richards, 2013: 32). Its ability to challenge long held opinions through criticism is relevant to the 21st century where there is a proliferation of information most of which parades as knowledge, and it becomes extremely difficult to make choices about that which should be trusted. Its ability to engage the mind in novel ways of thinking when it speculates about things not present in physical existence cannot be overemphasised. Many scholars recognize the value of critical thinking, claiming it is the most valuable skill students need to develop at all cost. Critical thinkers are usually open-minded, flexible, fair-minded in evaluation, honest in facing personal biases, prudent in making judgments (Robertson & Rane-Szostak, 1996: 552). Critical thinking competence consists of a shift from *output* to *process*, learning to thinking and subject isolation to subject integration of our education systems. Critical thinkers are intellectually curious about many things. They emphasise *how to think* rather than *what to think* (Thompson, 2011: 1-2). Although the Arts and Humanities primarily teach us how to think, critical thinking process broadens our horizon of imagination, reaching deeper insights concerning the ends or purpose of life. Accordingly, the ends or purpose of life are ultimately what matter to human existence as they make life a meaningful adventure.

Globally, educational institutions are preoccupied with attempts to respond to the critical needs of the 21st century. Rightly so, educational institutions are challenged to respond to this and other societal needs. Critical thinking is considered as the most important skill for problem solving, inquiry and discovery. Questioning has been accepted among educators as an open-ended process of inquiry and a function of critical thinking (Thompson, 2011: 5). Critical thinking is the systematic approach to the skilful evaluation of information in order to arrive at the most feasible solution to a variety of problems. However, as a skill embedded in philosophical tradition, it is not everyone who believes in it that understands and knows how to go about it. Its popularity does not necessarily entail its intelligibility among scholars of various orientations in academic disciplines. One of the reasons is that critical thinking is a very abstract cognitive ability or skill. This characteristic puts it at a disadvantage because most people are interested in the outcome and not the process. However, critical thinking can be applied in almost all disciplines by posing searching questions, directing students to conduct independent research, encouraging them to question or challenge long held assertions, and then present their own fact-supported positions (Thompson, 2011: 1).

The Socratic *elenchus* provides us with a prototype of critical thinking process. Because of its dialogical nature, critical thinking is also called the *science of critique*. Critique or analysis is a latent form of art. Its status as art is confirmed by its capacity to awaken and transform its participants and audience from their blind acceptance of dogma of many varieties. It engages issues that have not been sufficiently explored previously. Through criticism and creativity, the *elenchus* in itself can also be considered as a typical search for truth (Ohkusa, 2008: 47). In education, the role of Socrates in this process is similar to that of a midwife, while the student or learner remains the true parent of his or her own knowledge. The goals of Socrates were not merely to convince the student about his or her erroneous convictions, but to inculcate in the student the spirit of independence in search for authentic knowledge. Socrates believed that every human being has the capacity to understand things, and when he engaged students he believed that the power to discover the truth ultimately resides within students. Through criticism, students learn to reject all 'authoritative statements' and accept as true only those assertions

that can be adequately justified on rational grounds (Neumann Jr.,1989: 732). In the contemporary period which is characterized by excessive reliance on information, critical thinking becomes critical for survival. Students and other learners have to sift through large volumes of information in order to come up with their own authentic knowledge. In this regard Cameron Richards (2013: 57).maintains that Socrates' efforts to engage others and 'society' in general with questions represent more accurately an emergent knowledge-building model of how the most productive as well as universal 'problem-solving' requires humility in (a) engaging with the perpetual gap (or *aporia*) between 'what we know' and 'what we don't know', and (b) transforming the negative trajectory and arrogance of close-minded ignorance into a more sustainable, productive and universally as well as ethically consistent trajectory (and inherently spiritual approach) of rather potentially wise 'ignorance.'

One of the most important goals of critique is the development of creativity. Creativity entails the capacity to solve problems through insights that are arrived at independently and are considered novel (Neumann Jr., 1989: 744). Upon having their opinions refuted, the interlocutors can no longer maintain what they originally believed. From the state of utter perplexity and confusion, they enter a more important stage of curiosity and reflection, probing what might have gone wrong (Idachaba & Haaga, 2015: 35). In this state, students learn to seek new knowledge. It is the desire to seek new knowledge that is crucial. Socratic *elenchus* does not stop at *aporia*, the confusion which results from the absurdity of the rejected opinions. After such an absurdity, one begins to reconsider one's position. Immediately the mind is called into action when it starts conceiving things differently. Innovation is a consequence of the mind's operation of this kind. Innovation does not come because we wish it or because political authority says so. It is a rebuilding process of concepts by the mind after being hit by intellectual light. It is unthinkable that innovation, which has become synonymous with contemporary knowledge economy, will be possible without the ability for one to exercise critical thinking and application of imagination into the realms only reachable by the mind.[2]

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[2] Imagination is also critical in the development of moral knowledge. In this regard, Nussbaum (Nussbaum, 2010: xvii).has argued that literature as a form of art helps human beings to further public goals, especially improvement of their moral life. It is only through imagination, such as

Innovation does not come from the fact that science and technology provide tangible results. Rather, the quantifiable results are a product of the enlightened mind. Those quantifiable results are not the end for which knowledge processes are carried out.

The Socratic *elenchus*, as a way of thinking, can be applied to almost all spheres of human life. Indeed, human development in the 21st century is in need of the Socratic *elenchus*. Sen (1999) and Nussbaum (2011) have demonstrated this in their critique of the economic development paradigm. They have argued that it is not sufficient to make material provision of basic amenities to poverty-stricken societies. In his perceived poor state, a human being still has the dignity to make personal decisions. These two eminent scholars propose a capabilities approach to development. Thus the central feature of any developmental initiative must be to create conditions in which human beings are able to make and live by their own choices. Timothy L. Simpson has applied Socratic *elenchus* to democracy. He contends that eternal skepticism characteristic of the Socratic method is a primary virtue of the democratic citizens because it liberates citizens from strong commitment to their views and creates an opportunity for openness and dialogue with other viewpoints (Simpson, 2006: 140). This skepticism penetrates areas beyond the confines of individual beliefs. Citizen are able to doubt a broad range of beliefs, practices and traditions of any political regime (Simpson, 2006, p. 141). The Socratic method can help students learn the critical thinking skills and develop habits necessary for political participation in a pluralist democracy (Reich, 1998: 75). Critical thinking then leads one to knowledge, understanding and empowerment. For Paul Giannakopoulos and Sheryl Buckley (2010: 330)., knowledge involves understanding of information. As information makes sense and it becomes useful to someone, it becomes knowledge. For Nussbaum (Nussbaum, 1997: 19), the flourishing and continuity of a liberal democratic society very much depends on the ability of students as well as the rest of citizens to reason "Socratically." Socratic *elenchus* can also be used in communication. Just like the Platonic type, dialogues are the dominant form of communication. They appear every day

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the one gained through the study of literature, that one is able to experience the feelings of another person.

when human beings interact with each other. Effective dialogical interaction involves multiple skills, including the ability to converse with others, the skill of qualifying one's view, and the ability to elaborate and persuade others on our point of view (Robertson & Rane-Szostak, 1996: 552).

6.   Conclusion

It is impossible in this short piece to outline all instances in which the Socratic *elenchus* can be of relevance to knowledge processes in the contemporary period. I believe, the few that I have so far considered adequately demonstrate the claim under consideration. It is more important to keep in mind, however, that, despite the frequent and persistent attempts to sideline the Arts and Humanities on political and economic grounds, the needs of the 21st century world present an opportunity in which these disciplines can only be ignored at one's own peril. The Socratic *elenchus* provides the skills that epitomise critical thinking, which is itself, the core of the Arts and Humanities. However, critical thinking does not serve the Arts and Humanities alone. Its relevance cuts across multiple spheres of knowledge disciplines. This kind of knowledge or method of knowing and interacting with the universe cannot be deliberately ignored, preferring those which promise immediate and quantifiable practical results. This is not to underestimate the role that science and technology have played in transforming the material aspects of people's lives. However, that transformation which has become synonymous with the scientific domains of knowledge cannot be meaningfully sustained when the mind which is tasked with the organisation of thoughts is not sharp enough or sufficiently trained to contend with large volumes of information. The development of a more sophisticated, astute, and alert mind is critical. Such a mind is more prepared, and so in tune, to confront and understand problems of the contemporary sophisticated universe, while at the same time providing innovative intellectual resources for the much needed solutions. Rather than antagonizing these disciplines on reasons lacking sufficient evidence and sound analysis, there is need to recognize the complementary role of various spheres of knowledge in human development.

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